

Journal no VI

Frederick V. Coville

1  
(Sunday) May 10, 1891

We reached Red Rock about 2 A.M. where we changed horses and got a cup of coffee. We reached the summit north of Red Rock at about sunrise, and at nine o'clock in the morning came to Indian Wells. We took breakfast here and changed both horses and driver. At about six o'clock in the afternoon we reached Haywood Meadows where we took supper and changed horses.



May 11, 1891.

Keeler, Inyo County, Cal.

We reached here this morning at 1:30 A.M. My saddle horse was left at Indian Wells to be brought in by the next stage.

The distances travelled yesterday and the day before by stage are as follows: Mojave to Red Rock  
; Red Rock to Indian Wells  
Indian Wells to Haywood Meadows  
; Haywood Meadows to Keeler

Mr. H. E. Wilkinson the U. S. Signal Officer here has very kindly given me the use of his office while in town.

May 12, 1891.

Keeler, Inyo Co., Cal.

I remained at Keeler to-day  
answering correspondence.



May 13, 1891

Keeler, Inyo County, Cal.

I remained at Keeler to-day  
arranging notes

May 14, 1891.

Keeler, Inyo Co., Cal.

I made a collecting trip to-day in the mesa between Keeler and Cerro Gordo Mt.

The soil is made up of stone broken up so as to be quite small, but little water-worn; and filled and drifted over with sand. The soil is quite alkaline, as indicated by slight deposits in favorable places, and is especially marked as differing from similar mesas in the other valleys by the absence of Larrea except for a short distance below the mouths of the canons and in the beds of the canon washes. The bushes of Larrea in these places appear very healthy, and flower and fruit profusely.

The following plants were



seen in addition to a few  
others collected. Alt. 3650 to 3700 ft.

1105 to 1125 m.

- Distichlis maritima
- Atriplex confertifolia
- Suaeda suffrutescens
- Cleome sparsifolia
- Cleomella obtusifolia
- Gilia leptomeria
- Oenothera scaevola purpurea
- Oenothera gaumeflora
- Atriplex parryi
- Franseria dumosa
- Sarcobatus vermiculatus
- Biscutella californica
- Krynitzkia circumscissa
- Eriogonum reniforme
- Malacothrix sonchoides
- Oenothera brevipes
- Lepidium fremontii
- Oryzopsis cuspidata
- Encelia eriocephala

May 15, 1891

Keeler, Inyo County, Cal.

I went collecting to-day along the lake shore about a mile northwestward from town and then struck into the mesa northward through the sand-hills about a mile and then returned direct to the town.

The lake is bordered near Keeler and as far as the mouth of Owen's River by a strip, from a hundred yards or even less to a mile in width, of clayey sand with a deposit of soda and salt upon it, the sand particles firmly enough held together to prevent drifting by the wind. This ground is firm, dry on the surface, but well supplied with more or less alkaline water be-



neath. On the margin of this strip farthest from the water there is an abundant growth of Distichlis maritima, scantily mixed in some places with other small herbs. In the densest soda deposits the salt-grass cannot grow however and a large part of the lake-shore is therefore utterly devoid of vegetation. In many places, however, springs of fresh, or nearly fresh, water come up along the beach; and these are surrounded by growths of tules (Scirpus foemina, S. olneyi, and rarely, at this part of the lake, S. lacustris occidentalis) and rushes (Juncus mexicanus).

In the salt-grass, which extends backward into looser less alkaline sand are commonly found

Nitrophila occidentalis

Heliotropium curassavicum

Cordylanthus

Atriplex

Cleomella parviflora brevipes

Juncus mexicanus

Scirpus nevadensis

Still farther back from the shore the sand is looser and but slightly alkaline on the surface so that it drifts readily and is piled into sandhills. The most conspicuous and abundant shrub of these sandhills is

Sarcobatus vermiculatus

accompanied by

Atriplex parryi

confertifolia

Baccharis suffrutescens

Back of the sandhills the mesa begins with

Atriplex confertifolia

Franseria dumosa

Atriplex hymenelytra



The following plates additional  
to those made previously and to  
a few others collected today were

Chrysophidium maackii  
Atropa elyptaria

Alchemilla maackii

Junonia maackii

Polygonum maackii

Conium, maackii, maackii

Conium

Nitella maackii

Atropa maackii

Saxifraga maackii

— maackii

— maackii

— maackii

— maackii

May 11, 1901

Keller, Inyo County, Cal.

From the top of the hill and the  
 mountain. The lake is to be seen  
 and the middle quarry.

On the top and then stopped  
 to the lake. The lake is to be seen  
 along the road at the top  
 of the hill. The middle  
 quarry. The middle quarry is  
 between the middle and the top  
 of the hill. The middle quarry is  
 clearly described.

On the middle quarry  
 we took a cross road to the  
 middle quarry along the lake and  
 returned by that road.

Several new plants were col-  
 lected at the spring of the lake.  
 The middle quarry and on the  
 middle quarry. By some there are  
 collected. Besides the following

*Tridax* = *Tridax pulchella*



Lygodesmus californicus

Trifolium complanatum

Scirpus pungens

Chorizanthe rigida

Eriogonum chalybeatum

Bigelovia grandiflora

Arenaria californica

Lycium obscurum

Malvastrum coccineum

Nicotiana

Chenopodium

Melastomaceae

Monday May 13, 1890  
 Arrived at Keller 11 A.M.

The frontier line is in the  
 bottom of the canyon for miles on  
 both sides. The stream is small and  
 the big trees are scattered there.

May 17, 1880.  
 Made G. Camp, Panamint & W. Cal.  
 I left Baker this morning  
 with Mr. Panamint by the Cotton  
 wood Canyon trail following the  
 southern end of the I. go ridge  
 just south of Baker. The trail  
 and ascending nearly two hours  
 and fell into a valley very  
 filled with Yucca arborescens, to  
 be known in these notes as  
 Yucca Valley. The trail then  
 gradually descended about a thousand  
 feet continued passing  
 through a small narrow  
 canon containing a low water  
 hole, and descending for the last  
 half or more to the divide of  
 Panamint and Cedar Lake  
 Cops. The camp is about two  
 miles westward from this  
 divide, about a half mile  
 west of Jackson along about  
 32 miles from Baker.



The names following are defined to show what is meant by them.

North Canyon divide is the divide between the north and Panamint Valley and Lake Valley.

Mill Canyon is the canyon running from this divide down into Panamint Valley.

Wells Creek Canyon is the canyon which the stream from Jackson Spring flows into Lake Valley.

A dry arm of Wells Creek Canyon enters Mill Canyon at Mill Canyon divide. This is known as the south fork of Wells Creek Canyon.

Desert Mesa is the elevated plateau bounded on the south by the Owens and Lake Rivers, on the east by Panamint Valley, on the north by Lake Valley, and on the west by Lake Fork of the Owens River.

and Camp Valley.

Wisham travelled Keeler to  
Wisham Creek Camp about 30 miles.



May 17, 1891.

Mason Co. Camp, Panamint Mts., Cal.

Altitude making at camp  $= 6400 \text{ ft.} = 1900 \text{ m.}$   
5555

Mr. Trueman and I went walking this morning on the hillside facing southward and lying just north of camp. This hillside is rocky (granite) and is covered with a comparatively dense growth of shrubs. Its southerly slope favors the growth of the Pinus monophylla, which is very abundant on the opposite side of the narrow valley occupied here by Mill Low Creek.

The lower part of the piton has a well exposed fault throughout the whole horizon. When in view it is remarkable as being almost entirely devoid of Juniperus californica <sup>utahensis</sup>. On the slope recorded above none of it was seen there. It appears as if it had been swept away or struck out by the lava.

This hillside which, it should be noted is rocky and in granitic soil, is characterized by the following predominant shrubs

Epilobium, bushy green viridis  
Psychotria identata glandulosa

Ceanothus

Eriogonum, shrubby

The following plants were seen on this hillside

Antennaria identata

Bigelovia, stems woody, low

Phacelia, some on 227, condensata

Phlox identata?

Salix fragrans

Castilleja, smooth, tall

Poa

Salix longifolia

lanceolata

Urtica longifolia identata

Salix no 267

Phacelia no 268

Phacelia no 269

} along the road



*Thymus* *sp.*

*Calluna* *sp.* 750

*Crucifera*

*Viola* *sp.*

*Schizop*

*Monticola*, *sp.* 745, *albicaulis*

*Bigelovia* *sp.*

*Lythrum* *sp.*

*Lupinus* *sp.*

*Arabis*, *sp.* 745, *fulchra*

*Phacelia* *sp.*

*Oryzopsis* *sp.*

*Astragalus*

*Eriogonum* *sp.*

*Cornus*

*Eriophyllum*

*Anisocoma* *sp.*

*Samolus* *sp.*

*Alnus* *sp.* *multiflora* *sp.*

*Castilleja*

*Poa* *sp.* 781

*Stipa*

*Salix*, *sp.*

*Erigeron*, *sp.*

Carlinthus crassifolius

Taxus

Quercus, no 119 curvipes

Chamaecyparis

Deodar

altitude making it summit of hill  
7750. = 7600 ft. = 2315 m.

This afternoon the forest was  
I ascended the hill and a creek  
to its source with Pinus monophylla on the  
with slope down to the creek, but  
its uppermost part is probably of  
sub-pine nature again and it  
looks as if it were and appears  
to run over from a slope of  
sub-pine character on the north  
side.

The plants are somewhat  
the pine and apparently  
characteristic of them are

Pinus monophylla

Abies lutea ?

Asplenium tridentatum

Lupinus variegatus



Pos same as 131

Pos, no 752, californica.

The dense shade of the forest  
now have prevented some char-  
acteristic plants from growing  
in this particular place. How-  
ever the ferns are wanting  
Adiantum trichotomum is especially  
abundant.

The following plants additional  
to those already recorded to-day  
were seen.

Asplenium platyneuron

Polypodium <sup>var. multifidum</sup>

Asplenium no 182

Asplenium

Asplenium

Adiantum <sup>var. multifidum</sup>

In the top of the hill in some  
open ground we found the fol-  
lowing not recorded this morning

Adiantum

Adiantum

Adiantum

= 7600 ft. 2315 m.

altitude reading at summit 9706 ft.

May 22, 1911  
 Main Creek Camp, 9225 ft.

Altitude at night 9200 ft.  
 $= 6400 \text{ ft.} = 1950 \text{ m.}$

I went today to Mill Canyon  
 Divide and returned with horses  
 and pack. The road is a fine  
 road - or there is a fine  
 the road bending around to the  
 eastward, and then descended down  
 a canon to its junction with  
 Mill Canyon at the old mill. The  
 canon down which I came  
 I have called the south fork  
 of Mill Canyon. After descending  
 about a mile down the  
 canon below the fork I re-  
 turned up the main or north  
 fork to Mill Canyon Divide, and  
 returned to camp by the trail.

Altitude reading at Mill Canyon  
 divide on the way down, 8435 ft.  
 $= 5658 \text{ ft.} = 1720 \text{ m.}$

On a southwest slope of the  
 divide and a small lake  
 higher in the upper limit.



of the following plants

Juniperus polygala

ornatus

Coleogyne ramosissima

Atriplex canescens

The plant most abundant  
just above there is Urtica <sup>viridis</sup>  
green.

In the lower edge of the forest  
on the north slope south of the  
lake.

Urtica

Pinus mon

The lower edge of the forest  
is a very gradual slope  
at an angle of 500 ft.

The north slopes and south slopes  
on small hills have forest  
strikingly different appearance. The  
north slopes just below the forest  
one are covered largely with  
Artemisia tridentata; the south  
slopes, principally with dark  
green Urtica <sup>viridis</sup> and Panicum  
glandulosa and the vegetation

are respectively gray and green.

Another conspicuous feature of the landscape due to slope exposure is brought out in this region by looking southeast and northwest at sites situated at about lower pinn. h. In looking northwest one sees mostly a forest, mainly bare hills; while southeast the slopes may be half covered with them.

On the plateau at a reading of  $5900 \text{ ft.} = 1800 \text{ m.}$   
of  $8700 \text{ m.}$

Juniperus californica utahensis

Artemisia tridentata

Chelidonium <sup>viridis</sup> dark green, and occasional

Purshia tridentata glandulosa

On a gentle southwest slope at a reading of  $8600 = 5800 \text{ ft.} = 1770 \text{ m.}$

Coleogyne versicolor was abundant

Juniperus californica utahensis

Artemisia tridentata and

Chelidonium <sup>viridis</sup> dark green, about equal

At a reading of  $8550 \text{ ft.} = 1755 \text{ m.}$

level plateau, where there were no  
rocks (the soil seen before had been  
rocky) the main vegetation is

Chloa nevadensis  
^ glauca

Stemodia tridentata

Helianthus annuus

Yucca (arborescens) ^ arborescens

The old mill is 2100 ft. be-  
low camp. = 4300 ft. = 1310m.

The south fork of river canyon  
has no water, but the north fork  
is well supplied with small  
springs.

Altitude reading at camp at night = 6400 ft. = 1950m.

Following is a list of plants  
seen to-day in addition to those col-  
lected

Amelanchier terrellata abundant up to timberline

Artemisia

Argemone leucophaea

Antennaria spinescens

tridentata

Aster (triflorus) mohavensis

Achillea canadensis



Androsace incana Benth. & Hook.

Baccharis (8) stans

Bignonia hirsuta

Castilleja

Ceanothus

Chaenactis

with bluish

Claytonia rubra

Claytonia sp.

Claytonia

Claytonia sp.

Claytonia

Claytonia

Claytonia sp.

Claytonia

Claytonia viridis

Claytonia nevadensis

Equisetum sp.

Equisetum sp.

Equisetum sp.

Equisetum sp. = Syntrichopogon frumontii

Equisetum sp.

Equisetum minutiflora

Equisetum sp.

Curatella brunnea at about 1000 ft. in the mountains

Galium

Gilia fulgens in upper canyon

\_\_\_\_\_ \_\_\_\_\_ in upper canyon

\_\_\_\_\_ \_\_\_\_\_

Impatiens sp.

Urtica sp. in upper canyon

Veronica sp. =

\_\_\_\_\_ \_\_\_\_\_

\_\_\_\_\_ \_\_\_\_\_

Penstemon \_\_\_\_\_ utahensis

\_\_\_\_\_ \_\_\_\_\_ about 1000 ft. in the mountains

\_\_\_\_\_ ornatus

\_\_\_\_\_ \_\_\_\_\_

\_\_\_\_\_ \_\_\_\_\_

\_\_\_\_\_ \_\_\_\_\_

\_\_\_\_\_ \_\_\_\_\_ about 1000 ft., albicaulis

\_\_\_\_\_ \_\_\_\_\_

\_\_\_\_\_ salsola about 1000 ft. in the mountains

\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_

\_\_\_\_\_ \_\_\_\_\_

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May 2, 1901  
 Alt. 3200 ft. = 975 m. *Quail, Caball Valley, Cal.*

This morning I took a short ride to farther along from Miller the camp where I found additional

*Amelanchier alnifolia*

When I left camp I went to Millerton. From the mill pond of William McCracken to the junction with the main canyon road from this to Sierra Blanca, passing just above the town of Sierra Blanca. The view was continuous through the mountains, which to the south of the valley.

In the afternoon I collected some camp up the river about a mile.

The river has a more rapid of the lower part of the canyon. In upper portion are sand dunes and a good few alpine plants also. *Pinus monophylla*

May 22, 1941

Went to Camp, Summit 1950 m.  
I returned down from Summit  
today to the camp this morn-  
ing, by the same route taken  
in going down.

The plants are getting out  
today, but are still

alt. 3200 to 6400 ft. = 915 m. to 1950 m.

Deschampsia tessellata

Deschampsia flexuosa no 22

Polypodium, no 100, macradenia

Asplenium platyneuron common

many herbs with bulbous  
globose

Agrostis capitata Festuca barbata  
var. capitata = 1

Antennaria diaphana

Tridactylum

Actin (Corydalis) moskoviensis

Antennaria diaphana no 100

Casei 1947

Antennaria diaphana

Polypodium

Antennaria diaphana

Substratum of soil

Bellus pusillus

Bigelovia peruviana

Brachyotum interius = 1

Brachyotum interius

Brachyotum interius

Cartilago of sub-fundus

of sub-fundus

Cartilago interius

Cartilago interius

Cartilago interius

Chondria interius, album

Chondria interius, femontis

Chondria interius

Chondria interius

Chondria interius

Chondria interius

Chondria interius

Chondria interius

Chondria interius

Chondria interius

Chondria interius

Chondria interius

Chondria interius



Salvia glauca

Salvia

Quadrifida

Quadrifida sonorae

— no 100 - Cepella divaricata

Eleocharis

Eleocharis

—, no 100, micrantha

Eleocharis, no 100, condensatus

— condensatus

Eleocharis

Eleocharis nevadensis

— viridis

Eleocharis

Eleocharis, no 100

Eleocharis

Eleocharis, no 100, no 100

Eleocharis

— no 100

— no 100

— no 100

Eleocharis, no 100, ambigua

— ambigua

Eleocharis

Euphorbia altissima

Euphorbia horrida

Festuca arvensis

Limonium humile

Salix caprea

Salix glauca

Salix lucida

Salix myrsinites

Salix sp.

Salix sp. arvensis, sp. arvensis

Salix sp.

Salix sp.

Syringium virgatum

Syringium sp.

Syringium sp. virgatum sp. virgatum

Syringium sp. virgatum sp. virgatum

Syringium sp. virgatum sp. virgatum

Syringium sp. virgatum sp. virgatum

Syringium sp. virgatum sp. virgatum

Syringium sp. virgatum sp. virgatum

Syringium sp. virgatum sp. virgatum

Syringium sp. virgatum sp. virgatum

Syringium sp. virgatum sp. virgatum

Syringium sp. virgatum sp. virgatum

Syringium sp. virgatum sp. virgatum

Agrostis peruviana

Lausa maxima

Epilobium fruticosum

\_\_\_\_\_ lasiocarpum

Trifolium virgatum sub sp.

\_\_\_\_\_ \_\_\_\_\_ 768

\_\_\_\_\_ \_\_\_\_\_ ornatus

Lychnis antennaria

\_\_\_\_\_ \_\_\_\_\_ 306

\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ 500

\_\_\_\_\_ \_\_\_\_\_ 712, albicaulis

Minuartia lutea (plumosa)

\_\_\_\_\_ \_\_\_\_\_ 317

Minuartia californica

Hypericaceae salsola

Hypericaceae, no 11, ramosissimus

Veronica lychnidifolia

Veronica peruviana

Quercus \_\_\_\_\_

\_\_\_\_\_ conchitosa

\_\_\_\_\_ scapiformis \_\_\_\_\_

\_\_\_\_\_ \_\_\_\_\_ 762

\_\_\_\_\_ \_\_\_\_\_ 762, dentata

\_\_\_\_\_ contorta peruviana

Thunbergia laetevirens

retusa

Cratogeomys boylei

Platanus sp. retusa

Pontedericeae glauca, longa, diffusa, with long stems and small leaves

Phacelia francoi

hispida

var. glauca

purple with bracteate leaves

retusa, no 84

Rhondodendron bolleanum

Phagnolia communis

var. scopulorum

Prunella

Prunella

Palmetto, no 84, rivalis millegrana

Crataegus pubescens

Prunella francoi

var. scopulorum

84 123 = Forstiera parviflora

Phagnolia communis

var. scopulorum glandulosa



*Rhus* *copallina*

no 222

*Sabbatia* no 177 = *Erythraea exaltata*

*Succisa laevis*

" *laevis*

*longifolia*

*Salix purpurea*

*Salix columbiana*

*Scrophularia californica*

*Senecio longicaulis*

*Polypogon monspeliensis*

*Corylus americana*

*Salix viminalis*

*Solidago*

*serotina*

*Delphinium*, *montanum*, *monroviae*

no 222

*Stachys* *serotina*

St. serotina

*Stachys* *serotina*

*Stachys*

*Stachys*

*Stachys*

*Stachys*, no 222, *longiflora*

Tetragonia diversa

Thymus montanus

Tricardium watsoni, no 627

Typha

Urtica

Urtica (bracteata) arborescens

Urtica bracteata Stambergi

Urtica acutifolia

Urtica multiflora fulgens

Urtica

Bouteloua sericea no 675 = Festuca microstachya

Cochlosanthus crassifolius

Compositae same as 794 = Aplopappus interior

no 824 = Aplopappus monactis

no 839 = Crepis intermedia

Deschampsia calycina

Altitude of Lake Titicaca 3200 ft. = 975 m.

Lower limit of forest 4000 ft. = 1220 m.

Altitude of Lake Titicaca 3600 ft. = 1097 m.

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Altitude of Lake Titicaca 3600 ft. = 1097 m.

Altitude of Lake Titicaca 3600 ft. = 1097 m.

May 22, 1901

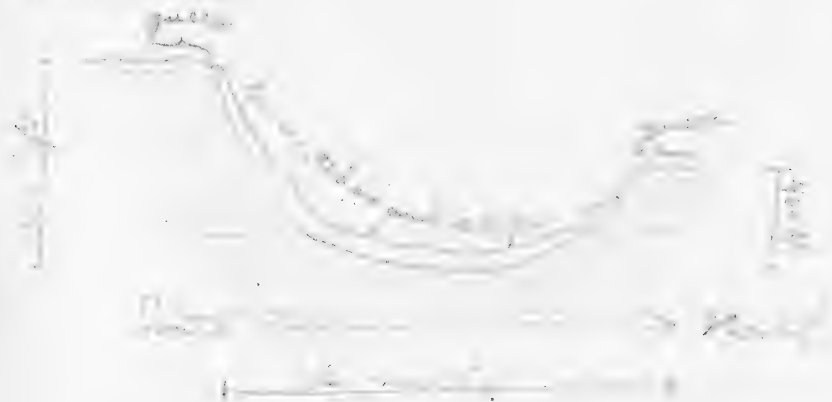
Barber, Inyo County, Cal.

I returned from Millerton Cr. Camp today by the same trail on which I went there.

- Altitude, rocky Millerton Cr. Camp = 6400 ft. = 1950 m.
- " " Millerton Cr. Camp = 5650 ft. = 1720 m.
- " " summit east of Yucca Valley = 5300 ft. = 1610 m.
- " " spring, trail to camp = 5600 ft. = 1700 m.
- " " Yucca Valley = 5400 ft. = 1645 m.
- " " lower part of trail = 5950 ft. = 1815 m.
- " " summit of lower part of trail = 7100 ft. = 2165 m.
- " " summit - rocky ridge = 6700 ft. = 2040 m.
- " " " = 3650 ft. = 1115 m.

Most of the trail ascends the east slope of lower Inyo Cr. where is a small natural spring, between Yucca Valley and lower Inyo Cr. which is interesting. The vegetation is very dry. The most common plants are *Pinus monophylla* and *Yucca arborescens*. The *Pinus* is mostly in the lower part of the trail, and the *Yucca* is mostly in the upper part.

the opinion. The following diagram  
shows the situation, the section  
being a vertical one from north  
to south. The distance was as  
indicated.





Chandlers May 24, 1891  
Peters, Inyo Co. Cal.  
I remained at Peters to-day.

May 25, 1911.

Ketchikan, Alaska.

I remained at Ketchikan today  
revising a catalogue of fishes  
as far as possible.

I bought a house for \$1000  
today.

May 25, 1881.

Wash. D.C. Geo. C. Smith, Esq.

I received in Wash. D.C. today  
writing on my report.

May 22, 1911

Kearney, DeWitt County, Cal.

I went to my usual place in  
the canyon north from Lawrence. The  
canyon was water and was very  
low and shallow. The following  
plants were seen in the canyon.

Yucca (Cylindropuntia) mohavensisYucca elaeagnifoliaYucca brevifoliaYucca arborescensYucca longistylisYucca angustifoliaChamaecristaChamaecrista monensisChamaecrista rigidaChamaecrista polylobataChamaecrista fasciculataEriogonum affineEriogonum affineEriogonum affineEriogonum minutiflorumEriogonum affineEriogonum affine



Folia leucocarpa

" truncata

" glabra

" like composita latifolia arguta

Myrica argentea

" discolor

Lychnis viscaria

Lychnis fruticulosa

" latifolia

Lychnis rostrata

Lychnis oblongifolia

Lychnis oblonga

Lychnis (composita) indica

Lychnis sp. obscura

Lychnis californica

Lychnis viscaria

Lychnis truncatella

Lychnis truncata

Lychnis lanceolata

Lychnis prostrata

Lychnis

Lychnis sp. obscura

Lychnis sp. obscura

Delphinium montanum

Salix salicifolia

Linnaea douglasii

Spiranthes strobilata, munroana

Raphe montana

Epip

Phlox subulnifolia & Stanleya elata =  $\wedge$

Pyrola rotunda

May 21, 1911

Heller, Inyo County, Cal.

I was informed from Shiloh  
for once today by the return  
mail concern of my house hold.  
I therefore began determining spe-  
cies that were collected since the  
last sending to the Department.

May 29, 1899

Recher, Inyo County, Cal.

I remained at Recher to-day  
examining plants.



May 31, 1911

Kula, Siskiyou County, Ore.

I determined plants today.

Late in the afternoon Mr.

Palmer party came in from Coos.

It consisted of only 4 men. Fred M.

Palmer and Mrs. Sch. They went

into camp in the sand grass

between Kula and the lake.

(Bundage) May 31, 98  
 Cedar, Inyo County, Cal.  
 Remained in Cedar to day

June 2, 1886  
• Lake, Inyo County, Cal.  
I wrote up notes and sketches  
today.

June 2, 1891.

Parker, Inyo County, Cal.

Worked on notes and plates today



June 2, 1911  
 Made up books. Col.  
 worked on notes and plants  
 to day.

June 4, 1881

Reeler, Inyo County, Cal.

Mr. Palmer and his party  
went to Lone Pine today. Beth  
and I accompanied them as  
far as they went, left Smith,  
about a mile north from the  
north end of Long Lake.

They took what is known as  
the lower road, passing the  
red white house. Then down  
in and the north canyon.

At the white house spring the  
following plants were seen.

Quercus ulmifolia

Juniper

Yucca elata

Artemisia tridentata

Pinus

Caragana

Polygala monspeliensis

Yucca baccata

The following were in fruit  
ing plants were seen at the

mouth end of the lake and along  
the river.

Abutilon sp. in fl.

... .. caerulea

... .. confertifolia

... .. torreyi

Abutilon

B. ...

Rosa polyantha

... .. torreyi torreyi

Sinopeltis

... .. membranacea

... .. membranacea

... .. membranacea lyata

Poa

... .. annua

... .. (... ..) membranacea

... .. sp. ...

... ..

... .. membranacea

... .. membranacea sp. ...

June 5, 1911  
 Harbor, Iago Co., Calif.  
 Working on plants and notes today



June 6, 1884  
Lumber & Lumber Co., Cal.  
Housed on Hillside and other things.

Sunday June 3, 1891

Keeler, Inyo County, Cal.

Beth, Mrs. Robinson, and I went to Lone Pine today, and took dinner at the camp, at George's ranch about a half-mile north of the town.

In the afternoon Dr. Fisher of Oliver, Mrs. Robinson and I went to the cemetery then to the nearest point of the earthquake crack and then back by way of the camp on Mr. George's farm. I collected several specimens before noon.

We reached Keeler in our return at about half past eight o'clock.

June 8, 1897.

Julia, Inyo County, Cal.

I met this morning Mr. Paul Henry a prospector who has lived about years among the Indians, mostly at Mill Lake, Panamint Mts. He gave me much new information.

In the afternoon I went with him about two miles on the road to Carrs Lake. The only plant we met would grow from this place before now.

Strophos polycarpa

June 8, 1900  
 Parker, Texas to Salt  
 I spent today writing up  
 journal.



June 24, 1911  
Reuter, Inyo Co., Cal.  
I spent today writing up my  
journal.



Agave hispida

Agave shimadae

Agave stricta

Agave americana

Agave (spp.) mohavensis

Agave

Agave americana

Agave americana

Agave americana

Agave americana

Agave americana

Agave (spp.) paniculata

Agave (spp.) americana

Agave

Agave americana

Agave americana

Agave americana

Agave americana

Agave americana

Agave americana

Agave americana

Agave americana

Agave americana

Ephedra nevadensis

Eriogonum foliolosum

Eriogonum (yellow)

" same as 131

Eriogonum - flavum

flavum

flavum

flavum

same as 131

same as 131

Eriophyllum fringile

Euphorbia albomarginata

Eurotia lanata

Fouquieria dumosa

Gilia floccosa

" latifolia

" matthaei

" serotina punctata

" triflora

" inconspicua D

Grass polygala

Gutierrezia

Helianthus (like Gutierrezia)

Hesperis matronalis = Elymus citarion



Lycium californicum

Kochia, (!) no 905, americana

Lycium humboldtianum

" circumscissum

Lycium californicum

Lycium

Lepidium flavum

" lincolni

Lupinus canadensis

Lycium californicum

" californicum

Lycium californicum

Mimulus spinescens

Mimulus

Mimulus californicus

" mutabilis californicus

Mimulus trigonifolius

Canthium brevifolium

" caespitosum

" genuiflorum

" scapulosum

" scapulosum californicum

Chama basilare

Ochromola echinocarpa

" rutile

membranacea

Oryzopsis (cuspidata) (ante de Yucca)

Oryzopsis perfoliata

Palafoua linearis

Pectocarya stolon

Pentstemon linearis 922)

Petalogyne

Panicum, same as 925, parishii

Plantago perfoliata

" ramosissima

Purshia tridentata glandulosa

Salix montana

Salix columbiana

Scirpus americanus

Sphaeralcea, sect. murroana

Stanleya pinnatifida

" elata

Staphanandra

Stipa

Tetradlea linearis

" pinosa

Tetradlea same as 925 = Caulanthus filosus

Triodia = Triodia fulchella, same (cuspidata) arborescens

April 20, 1904, Lone Mts., Big Horn Co., Mont.

Altitude rising, camp 7160 = 6000 ft. = 1830 m.

I collected plants in altitude of 7450 (11100 ft.)

mostly above the spring in the afternoon.

Altitude rising at camp, 1130 AM, 7300 = 6000 ft. = 1830 m.

In the afternoon I went to the first mine

southward from the spring, about 15 miles

and ascended this to an altitude of 7670 ft. = 6400 ft. = 1950 m.

This was somewhat above the line of lower

granite on north slopes, but all the time

had them cut off for firewood.

Altitude rising at camp 7400 (7300 AM) = 6000 ft. = 1830 m.

Following on the plants collected in

altitude I made some small openings

in other natural ridges.

June 12, 1891.

Yuba, Inyo County, California.

Went left Crystal Spring this morning and took the road to Harwin, and from there proceeded by the stage road to Reno.

Altitude reading at Crystal Spring 7300 = 6000 ft. = 1830 m.

crossing of road for Crystal Spring

and fork road

Upper Larrea mexicana

Lower Yucca arborescens

Harwin

Upper Larrea mexicana

Lower Larrea mexicana west side of road 6200 ft. = 1890 m.

Summit of Harwin - Harwin

Stone Corral

Summit of Harwin

Harwin

6975 = 5780 ft. = 1755 m.

= 5000 ft. = 1525 m.

6235 = 5120 ft. = 1560 m.

= 4200 ft. = 1280 m.

5350 = 4450 ft. = 1355 m.

= 4840 ft. = 1475 m.

5400 = 4550 ft. = 1395 m.

= 5700 ft. = 1735 m.

= 5300 ft. = 1615 m.

6570 = 5470 ft. = 1665 m.

= 4550 ft. = 1395 m.

5750 = 4850 ft. = 1475 m.

= 4450 ft. = 1355 m.

5100 = 4200 ft. = 1280 m.

= 3622 ft. = 1105 m.



Jan 2, 1891



Jan 14 1911

1-5-00

June 18, 1891



June 4, 1896.

Meadow Creek, near Lawrence, Lugo Co., Cal.

We left Lawrence this morning at about seven o'clock. Dr. Chapman, Mr. Palmer, B. M., and I with Mr. Buff for company. Peter and I rode on the west side of the lake.

We went down the west side of the lake looking for signs of the region. There is at some points about a mile and a half above the foot of the lake the region is an upper basin but this about is mostly made up of course of the region. The first one was near Lawrence, and from that there are not a few about the lake on the west side in greater abundance. It was a fact and we were sure we had found a good one. But we were not very much disappointed at a distance from the Olney house.

The most abundant signs are



Quercus californica

Eugenia viridis

Chrysomela californica

Urtica dielsii

Urtica (coriaria) mohavensis

Atropa montana Atropa pauciflora

Atropa polytricha

Atropa montana (var. montana)

Atropa

Atropa montana (var. montana)

Atropa californica

Atropa montana

Atropa

Atropa polytricha

Atropa

Atropa montana

Atropa montana

Atropa montana

Atropa montana

Atropa montana

Atropa montana

Atropa montana

Atropa montana

Atropa

Atropa montana

Centella coriacea

Gilia pinnata

Gilia matthiae

Glycerhiza

Grayia pinnatifida

Helianthus angustifolius

Hesperis

Lotus same as 250 = Lotus oblongifolius

Lotus (same as 250)

Lotus (same as 250)

Lotus (same as 250)

Lotus (same as 250)

Lotus (same as 250)

Lotus (same as 250)

Lotus (same as 250)

Lotus (same as 250)

Lotus

Lotus (same as 250)

Lotus (same as 250)

Lotus (same as 250)

Lotus (same as 250)

Lotus (same as 250)

Lotus (same as 250)

Succisa pratensis

Silene acaulis

Silene = Berula angustifolia

Spiraea

Stachys arvensis

Stachys germanica (L. var. germanica)

Stachys recta

Stachys

Tofieldia











Sunday. June 21, 1901

Central Lake, Kern County, Cal.

We left camp at one o'clock this morning, proceeding southward along a stage route till opposite Walker's Cove. We then took the road to the pass and reached the place at about seven o'clock.

The lowest reading on the slope was only 2000 ft and at this altitude and for a few hundred feet above the main vegetation was Larrea mex-  
icana, Franseria dumosa, and Quercus  
parvifolia.

The following altitudes were taken

|                        |                    |
|------------------------|--------------------|
| This meadow camp (600) | 2350 ft. = 715 m.  |
| Indian Wells (1100)    | 2606 ft. = 795 m.  |
| Thompson's Indian camp | 3050 ft. = 930 m.  |
| <u>arborescens</u>     | 3400 ft. = 1035 m. |
| <u>arborescens</u>     | 3750 = 1145 m.     |
| <u>arborescens</u>     | 3800 = 1160 m.     |
| <u>arborescens</u>     | 4000 ft. = 1219 m. |
| <u>arborescens</u>     | 4200 ft. = 1280 m. |
| <u>arborescens</u>     | 4900 ft. = 1495 m. |



Summit of cone and adjacent  
 ground on north slope

= 5722 ft. = 1590 m.

North west slope of the cone going down

ca arborescens

(but afterward goes lower)

= 4900 = 1475 m.

= 3904 = 1190 m.

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens filosa

ca arborescens

ca arborescens

ca arborescens

ca arborescens

ca arborescens

3800 ft. = 1070 m.

cuneatus

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp. = Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp.

Hydrocotyle sp. = Lotus procumbens

Hydrocotyle sp.

Hydrocotyle sp.

Pinus ponderosa

Pinus (very - not at all - rare)

Pinus californica

Pinus

Pinus resinosa (first seen near)

Pinus resinosa ornatus

Pinus resinosa

Pinus

Pinus

Pinus resinosa californica

Pinus resinosa californica

Pinus

Pinus resinosa

Pinus resinosa californica

Pinus resinosa

Pinus resinosa

Pinus (very rare) membranacea

Pinus (very rare) membranacea

Pinus

Pinus resinosa

Pinus resinosa

Pinus sabiniana

Pinus jeffreyi

Pinus resinosa

Prunella sp.

Prunella sp. glandulosa

Prunella sp.

Prunella sp.

Prunella sp. glandulosa

Prunella sp.

Rosa

Rosa sp.

Rosa sp.

Rosa sp.

Rosa sp.

Rosa sp.

Rosa sp.

Rosa sp. glandulosa

Rosa sp.

Rosa sp. argentea

Rosa sp.

Rosa sp.

Rosa sp.

Rosa sp.

Rosa sp. arborescens

Rosa sp. glandulosa

Rosa sp. argentea

Rosa sp. arborescens





June 22nd  
 Road leads north of mouth, then to the  
 N. of Cambridge Road the morning  
 following. The river road branches out  
 as we reach the bottom of the valley on the  
 north side of the river. We proceed on  
 the bank of the river until we reach the  
 point where the road branches off to the  
 north side of the river.

The road continues to the north from the point  
 where the road branches off to the north side of the river.  
 The road continues along the north side of the river  
 until it reaches the point where the road branches off to the  
 north side of the river.

arborescens  
 The road continues to the north from the point  
 where the road branches off to the north side of the river.  
 The road continues along the north side of the river  
 until it reaches the point where the road branches off to the  
 north side of the river.

The road continues to the north from the point  
 where the road branches off to the north side of the river.  
 The road continues along the north side of the river  
 until it reaches the point where the road branches off to the  
 north side of the river.

at the summit

Juniperus communis

Juniperus horizontalis

Strife capitata

— repens

— terrestris

Salix glauca

The following are the plants found at the summit but I am not certain

Desmodium illinoense

Dracopis argyrea

Rosa blanda glandulosa

Salix purpurea

The following are the plants found at the summit but I am not certain

Asclepias tuberosa

Asclepias speciosa

Asclepias tuberosa filosa

Asclepias tuberosa

Asclepias tuberosa

Asclepias tuberosa

Asclepias tuberosa

Asclepias tuberosa

Asclepias tuberosa

Cymodocea schindleri

Hydrocotyle andersonii

Hydrocotyle fasciculata

Scrub like shrub = Aplopappus interior

Thymus spinosus

Thymus canadensis

Scrub like shrub, still very common

Scrub like shrub, still very common

Thymus canadensis

Thymus canadensis

Thymus canadensis

Thymus canadensis

Thymus canadensis

Thymus canadensis

Thymus canadensis

The same shrub, still very common

The same shrub, still very common

Thymus canadensis

Thymus canadensis

Thymus canadensis

Thymus canadensis macrophyllum

Pinus sabiniana

Among the grasses, the following

Cercis occidentalis

Eriogonum glutinosum

Minimus glutinosus

Quercus wislizeni fontinalis

Quercus californica

Quercus whipplei

Alnus rhombifolia

The five plants that are known not to go over all belong to a belt not represented on the west slope so that the entire desert flora practically goes over to the short belt of the low river at its junction with Comstock Creek. From this point down the river there is little shrubbery, the land being all cultivated and the hillsides covered <sup>mainly</sup> with Quercus sabiniana, Quercus agrifolia, Ceanothus curvatus, Ceanothus divaricatus, Ceanothus divaricatus and the few Ceanothus.

On the hillsides south of the river, Quercus agrifolia is abundant.

Following are the plants seen today in addition to those collected.

Alnus rhombifolia at Baker

along Kern River

Alnus rhombifolia

along Kern River

Quercus agrifolia

Quercus californica

Argemone hispanica

Antennaria lindleyi

(to a photograph)

Salix arbuscula

Atriplex canescens (in the yuccas, sparingly)

Audubonia incana

Azolla canadensis (bottom of north fork)

Begonia douglasii

Calceolaria (bottom of south fork)

Capsella

Castilleja

Ceanothus, no 326, cuneatus

no 332, divaricatus

Atriplex like 2 or 3

Chorizanthe no 333

Cleome (bottom of south fork)

Conium same as 1135

Colea

Cuscuta peruviana

Cuscuta peruviana

Cuscuta

Doty multifida

Elaeagnus argentea

Elymus capensis

Eriogonum fulvum

Helianthus annuus

Helianthus annuus

Helianthus annuus



Eriogonum aureum - 103'

" (similar to argenteum from 100')

" (from 100' to 1000' alt. 1000')

Eriogonum aureum

Euphorbia altissima

" fruticosa

Fraxinus

Fraxinus californica

Glycyrrhiza alba

Juniperus communis

Juniperus communis

Juniperus communis (in 1000' alt.)

Juniperus communis (alt. 1000')

Juniperus communis (alt. 1000' to 1000')

Larix

Larix laricina

Larix laricina (alt. 1000' to 1000')

Larix laricina

Larix laricina

Morone americana

Morone indica (alt. 1000' to 1000')

Morone lutea

" gutturosa

Nicotiana

Quercus alba

Corylus hastata

Castanea sativifolia

Pinus (abundant, of various)

Platanus floridana or occidentalis macrophyllum

Juniperus sabini

Thuja occidentalis

Salix

Salix lucida

Populus alata

Salix caprea fulva

Salix pyramidalis

Salix caprea

Salix caprea

Salix caprea

Salix caprea

Salix

Salix caprea fulva

Salix caprea fulva

Salix caprea fulva

Salix

Salix

Salix

Salix caprea fulva

Syntherisma airides

Manduca pinnata

Polidroma concolor

of

5/11 2-2-10

Allylamine      2,4-Dinitrophenylamine

*Juniperus (Spartanum) arborescens*

Answer Yes Control in 1972 1971

*Aplopappus interior*

3. *rubra* - Small red flowers

with a few clumps of grass

arborescens

\_\_\_\_\_

Priloge wislizeni

$$= 3904 \text{ ft.} = 1190 \text{ m.}$$
$$= 2900 \text{ ft.} - 885 \text{ m.}$$
$$= 2600 \text{ ft.} = 796 \text{ m.}$$



and light of the sun

Cassiopea parviflora

Following is a list of the species

Alia rhomboides

Alia rhomboides

Alia rhomboides in Alia rhomboides

Alia rhomboides

Alia rhomboides

Alia rhomboides, no. 102, eriocarpa

Alia rhomboides (no. 102) eriocarpa

Alia rhomboides

Alia rhomboides

Alia rhomboides no. 102 cuneatus

Alia rhomboides, no. 102, divaricatus

Alia rhomboides no. 102

Alia rhomboides (no. 102)

Alia rhomboides (no. 102)

Alia rhomboides no. 102

Alia rhomboides no. 102

Alia rhomboides no. 102

Alia rhomboides (no. 102) eriocarpa

Alia rhomboides eriocarpa

Alia rhomboides

Alia rhomboides (no. 102) eriocarpa



Salvia multicaulis

Diervilla chrysantha

Desmodium illinoense

Erigeron phillyriaefolius no. 1156

Encelia frutescens

Ephedra <sup>viridis</sup> (dark green) (on the dunes)

Eriogonum setigerum

Eriogonum glutinosum

Eriogonum <sup>undulatum</sup>

no. 1157

fruticulosa

Erodium cicutarium

Eriogonum <sup>suberosum</sup> (orange-fls)

Echeveria <sup>variegata</sup> no. 1158

Euphorbia <sup>atropurpurea</sup>

Erigeron <sup>foetidus</sup>

Erigeron <sup>californicus</sup> (on the dunes)

Salvia <sup>no. 1159</sup>

1159

Synedrella nodiflora

Helianthus annuus

Portulaca <sup>gracilis</sup>

Portulaca

Portulaca <sup>strepens</sup>

Juncus lupinus (Nutt. Fish River River)

Juncus musculinus

Juncifera californica

Hypoxis no 105

Hypoxis , no 105, intermedia

Lepido postum agrostis

Lupinus no 105 = Psoralea californica

Ma rubra vulgaris

Anthemide crata

Malabala (pariflor) indica

Mimulus glutinosus

Mimulus no 105

1039

Nome no 1032 = Lemmonia californica

Nastium officinale (Nutt. Fish River)

Nastium

Oenothera gambelii

Oenothera lutea

Pastorale , no 1055, setosa

Pentstemon

Phacelia diversa viridis

Panicum sabiniana

Polygonum americanum

Populus

Altitude readings today are as follows:

Kennell about noon (3638) = 2550 ft. = 775 m.

Summit of Mt. Sierra (4220) 3 PM.  
= 3750 ft. = 1145 m.

Valley 5 miles S.P.M. 11 AM = 3100 ft. = 945 m.

Point 11 AM = 3150 ft. = 960 m.

Polygonum monspeliense

Prunus fasciculata (on the divide)

Quercus wislizeni fruit.

1. Quercus douglasii

1 Rhamnus californica

Rhus diversiloba

Ribes, no 112, leptanthum

Rosa (on the divide)

Rosa

Salix (on the divide) = Exthraea

Salix lasiocarpa

Salix alba

Salix

Salix douglasii

Salix Santa no 1064

Salix (on the divide)

Salix

Salix lasiocarpa

Salix

Salix (on the divide)

Salix like above = Aphelocoma interior

Salix (on the divide) of the South Fork

Yucca arborescens

June 28, 1911

Ranch 4 miles east of Caliente, Kern County, Cal., on the  
Caliente Tehachapi road.

We left Visalia this morning crossing the  
divide into Madera Basin, then another divide into  
Caliente Valley and for Caliente <sup>as well</sup> eastward on the  
Tehachapi road to the present ranch.

The whole country belongs to the *interior*  
*flora*.

Following is a list of the plants seen:

Quercus californica

Quercus laevis

Quercus alba

Quercus agrifolia

Quercus engelmannii

Quercus laevis on the hills

Quercus agrifolia

Quercus laevis on the hills

Quercus agrifolia

Quercus agrifolia (Caliente valley)

Quercus agrifolia

Quercus agrifolia

Quercus agrifolia

Quercus agrifolia on the hills

Biscion engleri

Blitum maritimum = Chenopodium californicum

Calceolaria no 1287

Calceolaria

Calceolaria, no 1288, cuneatus

Calceolaria, no 1289, divaricatus

Calceolaria paniculata (which is of Malva genus)

Chrysanthemum no 1290

Cnicus, no 1291, californicus

Corydalis no 1292

Cuscuta foetida

Cuscuta

Cuscuta multicaulis

Elymus condensatus truncatus

Eriogonum laevigatum

Eriogonum retrofractum

Eriogonum retrofractum

Eriogonum retrofractum

Eriogonum retrofractum

Eriogonum retrofractum

Eriogonum retrofractum

Eriogonum retrofractum



Euphorbia asperum

Euphorbia asperum no 1119

Euphorbia scillata no 1311

Euphorbia asperum

Euphorbia asperum asperum asperum asperum asperum

Euphorbia asperum no 1303

no 1305

Euphorbia asperum no 1308

Euphorbia asperum

Euphorbia asperum = Lotus glaber

Euphorbia asperum

Euphorbia asperum

Euphorbia asperum

Euphorbia asperum (no 1308)

Euphorbia asperum asperum

Euphorbia

Euphorbia asperum

Euphorbia asperum indica

Euphorbia asperum no 1306 disperua

Euphorbia asperum

no 1308

Euphorbia asperum asperum asperum asperum asperum

Thamnos no 1122 = Lemmonia californica

Thamnos flavus

Thamnos

Onoclea no 1078 micrantha

\_\_\_\_\_ 1082 contorta

Opuntia tristis (Cabrera Valley)

Potamogeton pusillus no 1089

Pentstemon no 1091

1092

Phacelia (very large on rocks)

Phoradendron flavescens velox

Pinus sabiniana

\_\_\_\_\_ jeffreyi

Poa arvensis

Polygonum erectum

Polygala monspeliensis

Populus

Prunus virginiana

Quercus agrostoides (Cabrera Valley)

Quercus wislizeni fontinalis

\_\_\_\_\_ (Cabrera) douglasii

no 1103

Ranunculus agrostoides (Cabrera Valley)

Ranunculus repens

Altitude readings today are as follows

Havilah 6 A.M. 1415' = 3150 ft. = 960 m.

Cruciferae parvifolius 1460' = 3600 ft. = 1103 m.  
9.4. -

W. side north of Mathura Basin 1520' = 4100 ft. = 1250 m.

Mathura Basin 1120' = 3100 ft. = 945 m.

Summit south of 113' — = 3850 ft. = 1175 m.

Summit west 2120' = 2500 ft. = 760 m.

East side 2040' = 1290 ft. = 395 m.

Rhamnus oxyloba (Colaba Valley, both slopes)

Albizia (aromatica) trilobata

Albizia liriodendron

Ribes sanguineum no 1577

Albizia, same as 1062, leptanthum

Albizia

Salvia hirsuta

Salvia hirsuta

Bambusa

Bambusa culmifera

Albizia rostrata (Colaba Valley)

Albizia rostrata

Albizia rostrata

Albizia

Albizia (Mathura Basin)

Albizia rostrata

Albizia rostrata

Albizia rostrata (abundant in Colaba Valley)

Albizia rostrata (of Mathura Basin)

Albizia rostrata (abundant in Colaba Valley)

Albizia rostrata

Albizia

Albizia rostrata = Balsamorhiza deltoidea

June 25, 1911

Cameron, Tehachas Pass, San County, Cal.

We left camp this morning and followed the  
Cameron-Tehachas road to the point facing  
Tehachas summit, through Tehachas valley and the  
town of Tehachas, to this point.

Proceeding west and down across the  
Tehachas valley, and through the pass.

Following is a list of plants seen today.

Artemisia mallefolia

Artemisia californica (to Tehachas summit)

Prosopis juliflora

Quercus californica

Quercus laevis

Arctostaphylos uva-ursi

Arctostaphylos

Arctostaphylos

Astragalus, no. 11, oocarpus

Astragalus

Agave

Euphorbia

Polium same as 1154 = Chenopodium californicum [cum]

Amelanchier

Adiantum

Liparis

Carex

Stachys

(in some places at several)

Chrysanthemum

Chenopodium

Conium maculatum

Conium maculatum

Cressa viridis (Chief Lake)

Antennaria

Potentilla (Chief Lake & west to Canon)

Eleocharis, no 22, palustris

Elymus canadensis trillacoides (forming northern

direction in east end of Tobacco Valley)

Ephedra

Eriogonum

Eriodictyon glaberrimum (Chief Lake & Tobacco Valley)

Lythrum

Lythrum no 22

Euphorbia oblongifolia

Trifolium lucanum

Trifolium californicum (west of Tobacco Valley)

Oxytropis linearis

Trifolium lucanum

Trifolium lucanum (abundant in Tobacco Valley)



- Platystemon curvispinus (var. Tehachensis)  
Elymus sitenion  
 no 112 (abundant - Tehachas valley)  
Urtica glabra (west of Tehachas Valley) = Lotus glaber  
Urtica mexicana  
Juniperus californica (near Canyon)  
 Lathyrus no 1120  
Lathyrus forsteri  
Isopachne agrostoides (west of Tehachas Valley)  
Lycium coarctum  
Marrubium indica  
Melilotus (herbifera) Tehachas Valley  
Marrubium glutinosum (west of Tehachas Valley)  
Lotus (west end of Tehachas Valley)  
Mimulus californicus (red) (1 mile west of Canyon)  
Nasturtium californicum (west of Tehachas Valley)  
Nasturtium  
Oxyria baccharis  
Penstemon same as one from the valley  
Phacelia (large) (west of Tehachas Valley)  
Phoradendron glaucum (west of Tehachas Valley)  
Phacelia (small) (west end of Tehachas Valley)  
Pinus sabiniana (from the west end of Tehachas Valley)  
Pinus giffreyi ? (Tehachas Valley)  
Platanus occidentalis (to Tehachas Valley)

Polygonum aviculare

Polygonum monspeliense

Populus (west of Tekachapi Valley)

Quercus wislizeni (Pachira)

" lobata (from west of, into, Tekachapi Valley)

" (cascades) douglasii

Ranunculus

Ribes leptanthum  
(same as 1882) (west of Tekachapi Valley)

Rosa

Rumex crispus

" no 1882

Salix maritima (Tekachapi Lake)

Salix lasiocarpa

Salix (west of Tekachapi Valley)

Saxifraga crucifera occidentalis (Tekachapi Lake)

" maritima (Tekachapi Lake)

Saxifraga canescens (Tekachapi Valley)

Scilla (west of Tekachapi Valley)

Scleranthus scutellarioides (1 mile west of Cameron's)

Senecio east end of Tekachapi Valley

Urtica holosericea

Urtica, same as 1882, proemorsa

Urtica sp. (west of Tekachapi Valley)

Urtica sp. = Aphlophaps interior

A tree of Juniperus debilis in the western  
foot of Tehachap. Valley measured 18 ft in circ-  
umference at some feet above the ground.

The floor of Tehachap. Valley is an inter-  
ior one, the foot hills about the valley basin  
only at a distance being covered with

Pinus sabiniana & Pinus jeffreyi

— mostly of the higher points. The valley  
bottom (about 6000 feet) is all under  
cultivation, but appears to have been

a shrubland area characteristic of the  
foot hills lands of the interior. No distinct  
forms appear until we enter the canyon

that connects the valley with the Mojave  
Desert at the lower end of the range.

The first desert plants that appear are about a  
mile west of Cameron, at place

Yucca brevifolia

Artemisia tridentata

Quercus agrifolia

Opuntia basilaris

Agave schottii

Quercus agrifolia = Aplopappus interior

In the eastern end of the range

is a shallow salt lake about 10 miles  
 length, which dries in summer leaving  
 large deposits of salt <sup>that</sup> are used com-  
 mercially. About the lake are a number  
 of interesting saline plants in many places.  
 See also the list and the catalogue for the  
Hempden condemned area with some others.

- (Cochran) niohavensis



[illegible]



Pinus monophylla  
^

arborescens

arborescens  
a ^

Gen (sp) mohavensis

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Quercus alba

Quercus bicolor

Quercus macrocarpa

Quercus (coccinea) membranacea

Quercus pringlei

Quercus

Quercus

Quercus macrocarpa

Quercus macrocarpa

Quercus

Quercus macrocarpa

Quercus arborescens

Quercus macrocarpa

Many kinds of oaks grow here and  
around the foot of the highest mountain in  
the State. The most common is the white oak  
(Quercus alba) which is common all over the  
State. It is a large tree with a thick  
bark and a spreading top. The leaves are  
oval and have a serrated margin. The  
flowers are small and green. The fruit is a  
nut which is covered with a hard shell.  
(110) The largest oaks grow



Plants of the same species were found in the  
 same place. The plants were found in the same place  
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arborescens

(arborescens)

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biniana

sa-

sabiniana

arborescens

Y

Arborescens

Arborescens

Arborescens

Arborescens

Arborescens

Arborescens

Arborescens

Arborescens

Arborescens



Morone vulgaris (west of the gulches)

Morone latens (Willow Spr. & Crane Lake)  
 Little just west of the gulches

Morone multiflora fulgens (abundant in

Morone affinis (Willow Spr. & Crane Lake)

Morone

Penstemon californicus (west of the gulches)

Diapchra membranacea (cucurbitata) (west of the gulches)

Penstemon (Cucurbitata) (west of the gulches)

Pison sabini (west of the gulches)

Polypogon monspeliensis (west of the gulches)

Polypogon perfoliatus (Crane Lake)

Polypogon

Forestiera parvifolia

Forestiera (Cucurbitata) (west of the gulches)

Forestiera (Cucurbitata) (west of the gulches)

Forestiera

Forestiera

Forestiera (Cucurbitata) (west of the gulches)

Forestiera (Cucurbitata) (west of the gulches)

Forestiera (Cucurbitata) (west of the gulches)

Forestiera

Forestiera (Cucurbitata) (west of the gulches)

Forestiera (Cucurbitata) (west of the gulches)

Forestiera (Cucurbitata) (west of the gulches)

*Rapanea*

(Mill. Sp.)

persea (brevifolia) arborescens

cliffii (near Lieke's *Rapanea*)

maritima palustris (Mill. Sp. & *Rapanea*)



June 20, 1911

Elk River, Boone County, Tennessee

We left camp at 10:00 AM and rode  
the train to Elk River, where we found  
station in the center of town.

We walked in the old gravel road  
until we reached the river.

June 21, 1911

Elk River, Boone County, Tennessee

We went to the river and  
collected many specimens.

June 22, 1911

Elk River, Boone County, Tennessee

We continued our work today and  
collected many more specimens.

July 1, 1911

Elk River, Boone County, Tennessee

We went to the river and  
collected many specimens. The  
water was very low and we  
were able to collect many  
specimens. It is about a mile long and  
one

thing at the end, extending north and south and  
lying on an elbow of the Cordoba de las Flores.  
The banks are grassy slopes with a few shrubs  
such as (Quercus laevis) and cottonwoods (Populus trem-  
uloides). At the north end is a small  
lake (San Juan) surrounded by marsh and at  
the southern end is a low natural wooden  
mainly of old oak (Quercus concolor).

The shallow margin of the lake is fringed  
with Puffin and some mud-suckers  
and in the southern side of the lake a  
small lake (1944) was formed. In the margin  
at the south of the lake were collected Quercus  
macrocarpa. The other plants were common.

July 2, 1944

San Juan, Kern County, California

I collected today on the hillside south  
west of the fort, about the mouth of the river.  
The slope here was covered mostly by oak  
(Quercus douglasii), Quercus parvifolia, Quercus  
(Quercus californica), Quercus laevis, and  
some grasses (Opuntia albiflora, Opuntia  
chrysocarpa, Quercus parvifolia and

Quercus macrocarpa. This is about the lower  
end of the distribution of the tree. The  
specimen very scarce.

July 2, 1891

Fort Tye, San County, California.  
I remained in camp today collecting  
and working notes.

Wednesday July 3, 1891

Fort Tye, San County, Cal.

Went to a mission and shot the birds  
for specimens.

Thursday July 4, 1891

Fort Tye, San County, Cal.

I remained in camp today.

July 5, 1891

Fort Tye, San County, California.

I went collecting today at Johnson's  
in the mountains just north of Fort Tye.  
At about 5000 ft. where the 10000 ft. forest  
line is reached there are abundant and



June 10. A very early morning of rain,  
 and a heavy shower of rain in the afternoon.  
 The weather was very warm.

July 1. A very early morning of rain,  
 and a heavy shower of rain in the afternoon.  
 The weather was very warm.

July 2. A very early morning of rain,  
 and a heavy shower of rain in the afternoon.  
 The weather was very warm.

July 3. A very early morning of rain,  
 and a heavy shower of rain in the afternoon.  
 The weather was very warm.





July 10, 1891

Tijon Ranch, Kern County, Cal.

Remained in camp this morning  
collecting plants and making notes. In  
the afternoon looked out to the mountains  
and the river valley.

July 11, 1891.

Tijon Ranch, Kern County, Cal.

We left Tijon Fort this morning  
at about half past ten, and went  
down Cañada de las Uvas to the Tulare  
Plains, following the direct road to  
Roe's Station. From that point we  
turned to the right and proceeded to  
Tijon Ranch.

Near the bottom of Cañada de las  
Uvas the oaks become scattered and  
finally disappear entirely. The ground  
is covered, in most places sparingly,  
with dried grass; while the only shrub  
seen was Jaumea arborescens. In the  
cañon, along the stream, occur be-  
sides the oaks, Acer negundo  
(Negundo californica), Vitis

californica, Populus monilifera, Platanus <sup>rac-</sup>emosa.

The plain itself is an even gentle slope, at this part of it, sparingly covered with grass and singularly devoid of shrubbery. The few shrubs that do occur with the identifiable <sup>herbaceous</sup> plants that are characteristic are Helianthus annuus, Croton californicus, Grindelia, Eremocarpus setigerus, Mirabilis multiflora pubescens.

In the vicinity of Tejon Ranch there are large groves of white oak (Quercus lobata), and along the creek that flows past it are cottonwoods (Populus monilifera) and dense masses of wild grapes (Vitis californica), both climbing the trees and trailing over its banks and forming hummocks three or four feet high.

(Sunday) July 12, 1891.

Tejon Ranch, Kern County, Cal.

Mr. Palmer and I rode to-day to Tejon Pass following up the cañon that furnishes water for Tejon Ranch, and ascending one of the

A few pines (Pinus monophylla) occur with Pinus sabiniana below the yellow pines.

higher divides. An old wagon-road extends to within about a half-mile of the summit, and beyond this point the ascent is altogether too steep for a road.

At the lower end of the canon the common trees are Quercus lobata, Q. wislizeni frutescens, some of them attaining a diameter of more than a foot, Platanus racemosa, Populus monilifera, P. trichocarpa. With these are found a few trees of cedar, Libocedrus decurrens.

At 3000 ft (computed), Pinus sabiniana ~~coerulea~~ <sup>begin</sup> begins and soon becomes here Digger-pine or bull pine, ~~is~~ abundant.

At an altitude of about ft, Artemisia tridentata begins and continues to be the most characteristic shrub up to about the summit of the divide.

The next zone is that of Pinus ponderosa. It contains also as a characteristic tree, Abies concolor, and higher up Pinus lambertiana. Two easily distinguishable forms of Pinus ponderosa occur, one at a lower altitude, a tall large tree, lanceolate or triangular-lanceolate in outline, with an acute top, and small cones with thin narrow scales. One of the larger trees



was 16 ft 7 in in ~~its~~ circumference. The other form grows at a higher altitude (from the summit to about three hundred feet below), and is a smaller tree with usually oblong outline and a rounded top (apparently due to the continued tendency of the uppermost shoots to be broken by the wind) and a much larger heavier cone. This latter form is the same seen on Frazer Mountain and appears to be the true Pinus ponderosa jeffreyi.

The computed altitude of the summit that we reached is 5800 ft. From this point we could look down upon the western part of the Mojave Desert in the direction of Willow Spring. Neither Mojave Butte nor the mountains south of Antelope Valley could be seen.

We descended by the same route.

The altitude of Tejon ranch was called 1450

July 13, 1891.

Bakersfield, Kern County, Cal.

We left Tejon ranch this morning and took the direct road from there to Bakers-



field, going into camp about a quarter-mile north of the town.

The road across the plains is very level and hard, in some places somewhat dusty and with but a mile or two of sand. There are no trees until one approaches Bakersfield, where they occur along the ditches and streams.

The higher portions of the plain, near Tejon ranch, are characterized by the same plants mentioned in the journal for the 11th inst. with the addition of Asclepias erosa.

The lower portions are moister and somewhat alkaline and are characterized in various parts by Atriplex polycarpa, Distichlis maritima, Salicornia ambigua, Spirostachys occidentalis, Sporobolus airoides, Suaeda suffrutescens, Suaeda and Frankenia grandifolia.

A portion of the higher plain towards Tejon ranch was characterized by the presence of Opuntia basilaris.

At Bakersfield we met Dr. & Mrs. Merriam & the baby. Dr. Merriam has been ordered to the Pribilof Islands and leaves for Visalia <sup>late</sup> to-night.

July 14, 1891.

Bakersfield, Kern County, Cal.

I remained in camp to-day making notes and cataloguing plants. Mr. Palmer has gone to San Francisco with Dr. Merriam.

July 16, 1891.

Poso, Kern County, Cal.

Beth and I, with Mc Grath, left for this point to-day.

The teamster was misdirected as to the road and shortly before noon we reached Poso Station, on the Glenville stage line. We therefore turned down the bed of the creek for two or three miles at which point we came upon the old road along Poso Creek. This we followed for three or four miles more after which it turned north<sup>west</sup>ward from the creek to the station Poso on the Southern Pacific R.R. The entire distance from Poso Station to Poso is about 14 miles. We went into camp at Poso.

The road from Bakersfield to Poso Station after crossing the Kern River bridge lies over

dry clay foothills almost entirely bare except for the now dead and closely grazed annual vegetation.

Some of the washes contain a leafless and seemingly dead shrub, and the only other scant vegetation is Asclepias erosa, Eremocarpus setigerus, Grindelia, Opuntia, and an occasional Cucurbita peruviana and digitata.

In the vicinity of Poso Station were seen also Isomeris arborea, Atriplex canescens? Mirabilis multiflora pubescens.

Poso Creek itself is at this season quite dry, and its bed is filled with a fine very glistening sand. The fall of the stream is very gentle, and no gravel is carried along in it. The trees along its banks are cottonwoods (Populus monilifera) and willow (Salix nigra) and sycamores (Platanus racemosa).

The plains beside Poso Creek are the same in vegetation as those described.

Many ranches through this region are deserted. The divide between Bakersfield and Poso Station is about eight hundred feet higher than Bakersfield.

July 16, 1891

Near Tipton,

County, Cal.

We left Paso this morning and proceeded along the railroad to this point, camping by a ranch on the bank of Tule River, about  $1\frac{1}{2}$  miles north of Tipton.

The country traversed is a dry, hot, clay plain, and like that seen yesterday is devoted to the raising of barley and to grazing. There is such a scarcity of water that fruit and alfalfa can scarcely be grown.

Tule River is dry and bears along its banks a few white ~~July 17~~ oaks (*Quercus lobata*) and sycamores.

July 17, 1891.

Visalia, Tulare County, Cal.

We continued this morning along the railroad to Tulare and then followed the motor road to Visalia, reaching here about eleven A.M.

As we approached Tulare, white oaks, <sup>*Quercus lobata*</sup> became frequent in the fields and there was



every evidence of a moist soil. Fruit is quite generally cultivated, and alfalfa fields as well as barley became numerous.

Between Tulare and Visalia all the land is fenced, and devoted to agricultural purposes as noted above. The natural pastures are of salt-grass, Distichlis maritima with a little Juncus mexicanus intermixed.

We went into camp about a mile and a half north and slightly ~~west~~ <sup>east</sup> from the town on a ranch worked by Mr.

July 18, 1891.

Visalia, Tulare County, Cal.

I went to town this morning and this afternoon wrote up notes and catalogue.

(Sunday) July 19, 1891

Visalia, Tulare County, Cal.

Beth and I went to church this morning, and in the afternoon remained in camp.



July 20, 1891.

Visalia, Tulare County, Cal.

I went collecting this morning along the road as far as the river, northward from camp about a half-mile. In the afternoon I catalogued specimens and later went to town.

July 21, 1891

Visalia, Tulare County, Cal.

I collected a few plants to-day near the camp, and spent the rest of the day cataloguing and writing notes.

July 21 to 24, 1891.

Visalia, Tulare County, Cal.

These days were occupied in outfitting for the Mt Whitney expedition. Mr. Bailey, with Dr. Fisher, arrived from Bakersfield and Mr. Palmer from San Francisco.

July 25, 1891.

Three Rivers, Tulare Co., Cal.

We left Visalia this morning, Bailey, Beth, and myself, with two packers, and proceeded

by the regular Mineral King road to this point.

Until we reached the foot-hills the vegetation was similar to that about Visalia. In the first foot-hills Quercus douglasii began. Three Rivers lies at about ft, according to Mr. Bailey, above Visalia. I was thrown from my horse, and my an-eroid damaged, just before lunch.

(Sunday) July 26, 1891  
Kane's Flats, Tulare Co., Cal.

We left Three Rivers this afternoon at about 1 o'clock, after a portion of the forenoon had been spent collecting about Kaweah River opposite, or a short distance below, Three Rivers. This place is, according to Mr. Bailey, about ft higher than Visalia.

July 27, 1891.  
Tulare Co., Cal.  
First Sequoia camp, Mineral King Road,

We reached this place this afternoon and went into camp by the stream that flows down the cañon into Kaweah River. Here I saw for the first time Sequoia gigantea.

July 28, 1891

## First Sequoia camp.

To-day Mr. Bailey and I went down the road about  $\frac{3}{4}$  mile to a hog-back with an old house on it, and turned down the steep slope through the chaparral to the river, descending about 1000 ft below camp to the mouth of the stream that flows by it. We retraced our steps by nearly the same route. In the afternoon I remained at camp cataloguing specimens.

July 29, 1891.

Tulsa Co., Cal.  
Mill camp, Mineral King Road.

We left camp soon after lunch to-day. I spent the forenoon collecting in the cañon near camp to an altitude of 200 ft above it. After lunch we proceeded to this point about  $\frac{1}{2}$  mile above the saw-mill.

July 30, 1891.

Mineral King, Tulsa Co., Cal.

This morning I catalogued specimens and collected a few things about camp. At about three o'clock we left camp and

and proceeded to Mineral King, camping about  
 $\frac{1}{2}$  mile above the old hotel, on the south bank  
of the stream under some evergreens.







+ Frustration

~~more complete~~

~~than~~

